

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-068755

(43)Date of publication of application : 08.03.2002

(51)Int.Cl.

C03B 8/02

G02B 3/00

(21)Application number : 2000-265163

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(22)Date of filing : 01.09.2000

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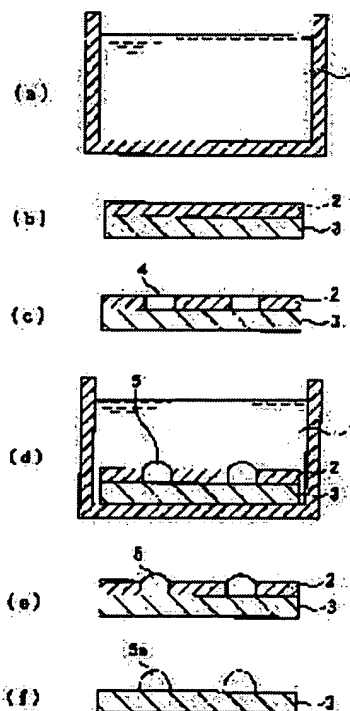
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## (54) METHOD OF PRODUCING OPTICAL ELEMENT

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To easily produce an optical element having a desired shape such as a micro lens by a sol-gel method.

**SOLUTION:** An organic silicon resin coating film 2 consisting of polysilane is formed on a glass substrate 3 and the coating film 2 is irradiated with an ultraviolet-ray through a mask forming a pattern having openings corresponding to those at lens areas of micro lenses to produce. Thereafter, the glass substrate 3 is immersed into a gelled silica 1, thereupon the gelled silica 1 bulges spherically and selectively at the irradiated area of the coating film 2 and adheres to the coating film 2. The gelled silica 1 is then heated and solidified and the organic silica gelled resin coating film 2 of the part free from adhesion of the gelled silica is removed by an organic solvent, and thereafter the gelled silica is further heated at 300-500°C to release absorbed water, hydrates, and combined water, and thus a transparent lens is obtained.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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